Missouri
Department
of Transportation

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ADDENDUM 001
REQUEST FOR BID
D611-133-RW ITS Hardware Maintenance

Bidders shall acknowledge receipt of Addendum 001 (ONE) by signing and including it with original quote. The due date for receipt of this bid **does change** by this Addendum. Accordingly, the following clarifications, questions and answers are believed to be of general interest to all potential bidders. All other terms and conditions remain unchanged and in full force.

Name and Title of Signer (Print or type)	Name and Title of Department Authority Terri Mount Sr. General Services Specialist
Bidder Signature Signature of person authorized to sign	Department of Transportation *Terri Mount* Authorizing Signature
Date Signed:	Date Signed: 5/2/11

Due to additional services requested the closing date for all proposals is extended to 1:00 p.m., May 25,2011 ,

Please replace pricing page 73 in the original document with the attached revised pricing page indicating the additional preventative maintenance services as indicated.

THIS ADDENDUM MUST BE SIGNED AND SUBMITTED WITH RESPONSE.

SECTION (5):
PRICE PAGE REVISED
D611-133-RW ITS Maintenance

(A) Fee Schedule: The Offeror shall indicate below all fees for providing services in accordance with the provisions and requirements stated herein for each series of bonds to be issued:

Any applicable cap on out-of-pocket expense also should be noted.

A. Table 1: Preventative Maintenance Annual Cost $ _____

B. Table 2: Labor Categories and Rates $ _____

C. Table 3: Repair Item pay Items

$ _____

$ _____

(B) Addendum 001: Additional Items:

A. Arterial Management Integrator
250 hours/ 12 months $_____

B. Variable Advisory Speed Signs Add additional costs as described to Table 1 and Table 3 above.

(C) Total Proposal Costs as indicated above: $_____

(D) Expenses: No additional compensation will be made for expenses outside of the pay items included in the contract, with the exception of as described under the processes for work not covered by the included pay items and as described in the individual pay items in the contract.

COMPANY:_____ SIGNATURE: _____

DATE;_____

ADDENDUM 001
A. ARTERIAL MANAGEMENT SYSTEM

Arterial Management System

The contractor shall provide at least one (1) individual Integrator that specializes in Arterial Management Systems (AMS) networks, communication networks and protocols, or fiber optic, wireless, or copper communication systems, dependent upon the AMS system issues being reviewed, optimized, or reconfigured.

The minimum pre-qualification requirements for this Integrator are to:

Have at least seven (5) years of proven experience in the operation, maintenance, design, and construction of a large AMS system (at least 250 signals) in a major metropolitan area where the Commission's Siemens ACTRA central signal system is a core component of the AMS.

The following tasks and services will be provided for AMS support:

TASK 1 – Remote Technical Support

Contractor's Integrator will provide telephone support monthly to resolve network communication and operational issues, to coordinate with equipment suppliers to obtain necessary updates to address operational issues, to assist with the installation of manufacturer provided software updates, and to provide technical assistance to Client personnel, as requested.

Some or all of the monthly remote support may be provided through interconnection between the Commission's AMS and the comparable AMS system of the Integrator's choice, via CITRIX or other acceptable DNS-VPN link, to provide real time interface to the Commission's AMS system. The Integrator's remote system shall function with comparable Microsoft operating system configuration, hardware setup, and AMS software to demonstrate and/or replicate operational issues requiring resolution.

TASK 2 – On-site Technical Support

On-site technical services shall include regular visits to the Commission's offices for performing the detailed services and maintenance operations listed below. On-site technical services shall include review of existing AMS to identify and resolve operational or functional issues associated with needed software upgrades/patches, resolution of network communication issues, hardware interface failures, and/or other aspects of system infrastructure optimization that is best reviewed/configured in person. Additionally, on-site visits will provide instruction/introduction to newer software features and capabilities installed as part of normal product upgrades and enhancements.

The on-site service visit(s) shall include at least one (1) individual Integrator that specialize in ATMS networks, communication networks and protocols, or fiber optic, wireless, or copper communication systems, dependent upon the AMS system issues being reviewed, optimized, or reconfigured.

EMERGENCY SUPPORT

In the event of a system failure of the Client's AMS, the Integrator will make every effort to be available on short notice to provide needed assistance and support. Emergency assistance will be provided as promptly as possible depending upon availability of the necessary technical specialist required to resolve the primary problem. If system failure occurs after the on-site visit(s) have been completed, or if the fee earned during any

recovery effort exceeds the remaining contract compensation, labor and expenses for the emergency assistance will be subject to additional fees based upon the attached **Exhibit I, Table 2, Labor & Categories & Rates.**

SCHEDULE

Contractor shall provide the Integrator for 250 hours per 12 month period. Services provided under this scope of services shall be arranged with the Commission at times that meet the scheduling requirements of both the Commission and the Integrator. Every effort will be made to schedule on-site visits at appropriate intervals to maximize the benefit of the visits.

ADDENUM 001 (CONT)

VARIABLE ADVISORY SPEED SIGNS

1.3.X. Variable Advisory Speed Signs

A. **Description**. Work under this item shall include cleaning, communication equipment configuration verification, internal layout configuration (wiring diagrams, etc.), and general inspection of the Variable Advisory Speed Signs (VAS).

B. **Materials/Payment**. The Contractor shall provide all equipment and materials necessary to perform the required function, including filters. The Contractor will need to provide their own bucket truck or ladder in order to access the signs. The Engineer shall provide to the Contractor the latest version of software used for controller and cellular modem configuration verification.

C. **Construction Methods**. All preventative maintenance shall be done in accordance with the manufacturer's recommended procedures. Care shall be taken to prevent damaging components or cabling within the sign enclosure and associated cabinet. For each VAS, the following items of work shall be performed:

General Cleaning. The Contractor shall thoroughly clean the VAS. The enclosures shall be cleared of any dirt or debris, any paint or graffiti markings on the exterior shall be cleaned off and/or removed, wiping down all accessible interior equipment racks, and shelves. Upon completion, the enclosure shall be free of all debris, rodents, pests, and animal waste, and shall be neat and clean in appearance. The plexi-glass display cover shall be cleaned, inside and outside with a water repellant solution applied in accordance with manufacturer's specifications.

General Inspection. The Contractor shall inspect each location for general condition, including condition of cables and wires, batteries, solar panels, power supplies, connectors, and communications panels or equipment contained within each VAS enclosure and cabinet.

Structural Inspection. The Contractor shall visually inspect the VAS pole or sign structure for apparent cracks or defects, including the VAS mounting hardware. Wherever readily accessible, the Contractor shall check that nuts and bolts are not loose. Repair or replace non-functional mounting hardware used to attach the VAS sign, cabinet, or solar panels. Significant structural concerns, such as a leaning VAS pole shall be reported to the Engineer for further investigation and direction.

Operational Integrity Checks. The Contractor shall check and record voltages on all batteries, and verify that all solar power equipment appears to be operating properly. Contractor shall also perform a diagnostic on sign display per manufacturer's specs. Any equipment not functioning properly shall be reported to the Engineer.

Solar Panel Inspection. The Contractor shall inspect the solar panels at each VAS to ensure optimal exposure to sunlight. Tilt and southern orientation of the panels shall be adjusted as necessary. Significant obstructions to sunlight, such as trees and other vegetation, shall be reported to the Engineer.

Cellular Signal Strength Testing. The Contractor shall test the cellular signal strength observed at each VAS site. This value shall be recorded and included in the maintenance report to the Engineer. Substandard cellular signal locations shall be immediately reported to the Engineer for further remediation.

Documentation. The Contractor shall use the location documentation including inventory and wiring diagrams to verify that all equipment is documented and the correct models and serial numbers are recorded. All information gathered under this item, including general inspection, operational integrity verifications, structural cracks or defects, and controller configurations shall be submitted to the Engineer as part of a Preventative Maintenance Report. This report shall document all items checked and verified, and repairs made. Reports for all VAS's inspected under this item shall be organized, sorted by direction and logimle in ascending order and delivered after the completion of each execution of this task. If a structural or solar power supply defects are noticed through this work, the documentation shall be submitted directly to the Engineer to highlight issues noted. Reports for all sites inspected under this item shall be electronically submitted.

1.8.X. Remove Variable Advisory Speed Sign (VAS) Pole

A. **Description**. Work under this item shall consist of removing an existing VAS pole from an existing foundation, and removal of the foundation to grade level if the sensor pole is not to be replaced.

B. **Materials/Payment**. VAS units and poles will be existing. The Contractor shall be responsible for the condition of all connectors, terminators, communication/power cables, cable management and equipment necessary to erect the unit and pole. This task shall be paid per each VAS removed.

Removal of the remote traffic sensor, connectors, terminators, and all cables shall be paid for under separate pay items in this Contract.

C. **Construction Method**. Upon being given clearance by the Engineer to begin work, the existing VAS assembly, mounting brackets, and all cables and connectors shall be removed from the pole. The pole shall be unbolted from the foundation and lowered if necessary. VAS power and communication cables shall be disconnected and removed. The pole shall be delivered to a location directed by the Engineer for storage or disposal. The Contractor shall dispose of all usuable cable and other materials as directed by the Engineer.

1.8.X. Install Variable Advisory Speed Sign (VAS) Pole

A. **Description**. Work under this item shall consist of installing a new or salvaged VAS pole on a new or existing foundation.

B. **Materials/Payment**. VAS units and poles will be supplied through the Gateway Guide Spare Parts inventory and will be new or will have been salvaged for reinstallation. The Contractor shall be responsible for anchor nuts and washers. This task shall be paid per each VAS Pole installed.

C. **Construction Method**. Before installation, the Contractor shall clean the pole free of oil and foreign matter. The Contractor shall install the pole vertically and check it using a plumb or other instrument. The anchor nuts shall be tightened to a torque as specified by the pole manufacturer.

1.8.X. Remove Variable Advisory Speed Sign (VAS) Assembly

A. **Description**. Work under this item shall consist of removing a VAS assembly from an existing pole. The VAS assembly is defined as the digital sign housing, associated cabinet, batteries, solar and sign controllers, solar panels, and all power and communication cables associated with the VAS site.

B. **Materials/Payment**. VAS assemblies will be existing and on existing poles. The existing poles may be erect and in use, fallen, or knocked over. The Contractor shall be responsible for the condition of all connectors, terminators, communication/power cables, cable management and equipment necessary to erect the unit and pole, including nuts and washers. This task shall be paid per each VASassembly removed and salvaged for use as spare parts or disposed of as directed by the Engineer.

C. **Construction Method**. The Contractor may request that the functionality of the VAS assembly be verified by the Engineer or Commission staff prior to beginning work, if applicable depending on circumstances dictating the removal. Upon initiation of work, the Contractor shall be responsible for the condition of the VAS assembly. The VAS assembly, mounting brackets, and all cables and connectors shall be removed from the pole and disconnected. The VAS assemblies shall be removed from the field location by the Contractor and put into storage for use as maintenance spare parts or disposed of as directed by the Engineer. The Contractor shall dispose of all cable and other materials as directed by the Engineer.

1.8.22. Install Variable Advisory Speed Sign (VAS) Assembly

A. **Description**. Work under this item shall consist of installing a VAS detector assembly on a new or existing pole. The VAS assembly will be furnished by the Commission or will have been removed and salvaged for reinstallation. New VAS assembly mounting brackets shall be furnished by the Contractor for each VAS assembly installed. The VAS assembly is defined as the digital sign housing, associated cabinet, batteries, solar and sign controllers, solar panels, and all power and communication cables associated with the VAS site

B. **Materials/Payment**. VAS assembly units will be provided by the Commission or will have been removed and salvaged for reinstallation. The Contractor shall be responsible for all connectors, terminators, mounting brackets, communication/power cables, cable management and equipment necessary to attach the VAS assembly to the pole, including bolts and washers. All wires, connectors, mounting brackets, bolts and washers shall be new and recommended by the VAS manufacturer. This task shall be paid per each VAS assembly installed, connected and tested.

C. **Construction Method**. The Contractor shall erect a new or salvaged VAS assembly and mounting brackets, and run new power conductor cables and communication cable. The Contractor shall mount the solar panels such that optimal solar exposure is obtained for the VAS site. Power cables shall be connected to the solar power controller and batteries in the VAS cabinet per manufacturer recommendations. Solar power controller settings shall be per the manufacturer. If a cellular data modem exists at the site, the Contractor shall program the modem to communicate within the MoDOT network, and tested for a successful link. Substandard cellular signal strength shall be improved by the Contractor installing an external cellular antenna or other means recommended by the cellular modem manufacturer. The Contractor shall verify operation of the VAS assembly with the Gateway Guide Operators in the TMC prior to leaving the field site.

Add to Table 1: Gateway Guide Preventative Maintenance Items

1.10 Variable Advisory Speed Signs (VAS), 70 units, Annual Frequency – 1, Annual Quantity – 70

Add to Table 3: Repair Item Pay Items and Unit Prices

3.28 Remove Variable Advisory Speed Sign (VAS) Pole

Unit 1 ea
Max Time to Complete – 24 Hours
Max Unit per Incident – 1
Initial Annual Quantity – 2

3.29 Install Variable Advisory Speed Sign (VAS) Pole

Unit 1 ea
Max Time to Complete – 24 Hours
Max Unit per Incident – 1
Initial Annual Quantity – 2

3.30 Remove Variable Advisory Speed Sign (VAS) Assembly

Unit 1 ea
Max Time to Complete – 24 Hours
Max Unit per Incident – 1

Initial Annual Quantity – 2

3.31 Install Variable Advisory Speed Sign (VAS) Assembly

Unit 1 ea

Max Time to Complete – 24 Hours

Max Unit per Incident – 1 Initial Annual Quantity – 2